

WHAT IS CLAIMED IS:

1. A method of treating a patient, comprising the steps of:
transluminally advancing a prosthesis into the coronary sinus;
manipulating the prosthesis to exert a compressive force on the mitral valve annulus; and
conducting a signal to the prosthesis from a cardiac rhythm management device.
2. A method as in Claim 1, wherein the conducting step comprises conducting a signal from the cardiac rhythm management device to at least one electrically conductive element on the prosthesis.
3. A method as in Claim 1, wherein the conducting step comprises conducting a signal from the cardiac rhythm management device to at least one electrically conductive annular band on the prosthesis.
4. A method as in Claim 1, wherein the conducting step comprises conducting a signal from the cardiac rhythm management device to at least one externally facing electrically conductive axially extending strip on the prosthesis.
5. A method as in Claim 1, additionally comprising monitoring hemodynamic function prior to the manipulation step.
6. A method as in Claim 1, additionally comprising monitoring hemodynamic function during the manipulation step.
7. A method as in Claim 1, additionally comprising monitoring hemodynamic function following the manipulation step.
8. A method as in Claim 1, further comprising the step of percutaneously accessing the venous system prior to the transluminally advancing step.
9. A method as in Claim 5, wherein the accessing step is accomplished by accessing one of the internal jugular, subclavian or femoral veins.
10. A method as in Claim 1, wherein the manipulating step comprises axially moving a forming element with respect to the prosthesis, to bend the prosthesis.
11. A method as in Claim 1, further comprising the steps of first measuring the coronary sinus and then selecting an appropriately sized prosthesis prior to the inserting step.

12. A method as in Claim 6, wherein the step of monitoring hemodynamic function is accomplished using transesophageal echo cardiography.

13. A method as in Claim 6, wherein the step of monitoring hemodynamic function is accomplished using surface echo cardiographic imaging.

14. A method as in Claim 6, wherein the step of monitoring hemodynamic function is accomplished using intracardiac echo cardiographic imaging.

15. A method as in Claim 6, wherein the step of monitoring hemodynamic function is accomplished using fluoroscopy with radiocontrast media.

16. A method as in Claim 6, wherein the step of monitoring hemodynamic function is accomplished using left atrial or pulmonary capillary wedge pressure measurements.

17. A method as in Claim 6, further comprising the step of determining an ongoing drug therapy taking into account post implantation hemodynamic function.

18. A method of remodeling a mitral valve annulus to reduce mitral valve regurgitation, comprising the steps of:

providing a prosthesis which is adjustable between a first configuration for transluminal deployment within the coronary sinus and a second configuration for exerting a compressive force against the mitral valve annulus from within the coronary sinus;

transluminally advancing the prosthesis to a position at least partially within the coronary sinus;

manipulating the prosthesis to reduce mitral valve regurgitation; and

placing the prosthesis into electrical communication with a pacing source.

19. A method as in Claim 18, additionally comprising the step of monitoring the regurgitation.

20. A method as in Claim 19, wherein the monitoring step comprises monitoring the degree of regurgitation prior to the tightening step.

21. A method as in Claim 19, wherein the monitoring step comprises monitoring the degree of regurgitation during the tightening step.

22. A method as in Claim 19, wherein the monitoring step comprises monitoring the degree of regurgitation following the tightening step.

23. A method of remodeling a mitral valve annulus as in Claim 19, wherein sufficient tightening is accomplished to achieve at least a one grade reduction in regurgitation.

24. A medical apparatus for remodeling a mitral valve annulus adjacent to the coronary sinus, comprising:

an elongate body, movable between a first configuration for transluminal delivery to at least a portion of the coronary sinus and a second configuration for remodeling the mitral valve annulus from within the coronary sinus;

a forming element attached to the elongate body for manipulating the elongate body between the first transluminal configuration and the second remodeling configuration; and

an electrode, carried by the body.

25. The medical apparatus according to claim 24, wherein the electrode comprises an axially extending strip.

26. The medical apparatus according to claim 24, wherein the electrode comprises an annular band.

27. The medical apparatus according to claim 24, further comprising at least one electrical conductor extending away from the body.

28. The medical apparatus according to claim 27, further comprising a pacing source in electrical communication with the electrical conductor.

29. The medical apparatus according to claim 27, further comprising a cardiac rhythm management device in electrical communication with the electrical conductor.

30. The medical apparatus according to claim 27, further comprising a diagnostic instrument in electrical communication with the electrical conductor.

31. The medical apparatus according to claim 24, wherein the forming element is secured to the elongate body at a point of attachment and the forming element is movable relative to the elongate body in order to adjust the elongate body within the coronary sinus between the first and second configurations.

32. The medical apparatus according to claim 24, wherein the elongate body defines an arc when in the remodeling configuration.

33. The medical apparatus according to claim 32, wherein a best fit constant radius curve corresponding to the arc has a radius within the range of from about 10 mm to about 20 mm.

34. The medical apparatus according to claim 24, further comprising a lock, for retaining the body in the second configuration.

35. The medical apparatus according to claim 34, wherein the lock comprises an interference fit.

36. The medical apparatus according to claim 34, wherein the lock comprises an engagement surface, which is movable between a first, disengaged configuration and a second, engaged configuration.

37. The medical apparatus according to claim 24, further comprising a coating on the body.

38. The medical apparatus according to claim 24, wherein the apparatus is movable from the implantation configuration to the remodeling configuration in response to proximal retraction of the forming element.

39. The medical apparatus according to claim 24, wherein the apparatus is movable from the implantation configuration to the remodeling configuration in response to distal advancement of the forming element.

40. The medical apparatus according to claim 24, further comprising an anchor for retaining the apparatus at a deployment site within a vessel.

41. The medical apparatus according to claim 40, wherein the anchor comprises a distal extension of the apparatus.

42. The medical apparatus according to claim 40, wherein the anchor comprises a friction enhancing surface structure for engaging the wall of the vessel.

43. The medical apparatus according to claim 40, wherein the anchor comprises at least one barb for piercing the wall of the vessel.

44. The medical apparatus according to claim 40, wherein the apparatus has an axial length of no more than about 10 cm.

45. The medical apparatus according to claim 24, wherein the maximum cross sectional dimension through the apparatus is no more than about 10 mm.

46. The medical apparatus according to claim 24, further comprising an axially extending support in the body, attached to the forming element.

47. A method of treating a patient, comprising the steps of conducting a signal from a cardiac rhythm management device to a prosthesis in the coronary sinus, the prosthesis comprising an elongate body, movable between a first configuration for transluminal delivery to at least a portion of the coronary sinus and a second configuration for remodeling the mitral valve annulus from within the coronary sinus, and an electrode for receiving the signal from the cardiac rhythm management device.

48. A method as in Claim 47, wherein the conducting step comprises conducting a signal from the cardiac rhythm management device to at least one electrically conductive annular band on the prosthesis.

49. A method as in Claim 47, wherein the conducting step comprises conducting a signal from the cardiac rhythm management device to at least one electrically conductive axially extending strip on the prosthesis.